

We claim:

1. Heart condition monitoring apparatus, comprising:
 - a pair of glasses;
 - a plurality of light emitting diodes on the glasses for emitting light onto a surface;
 - a plurality of photosensors on the glasses for receiving reflected light;
 - electronic circuitry on the glasses and connected to the plurality of photosensors for receiving signals from the plurality of photosensors; and
 - a power source on the glasses and connected to the the plurality of light emitting diodes, the plurality of photosensors and the electronic circuitry for providing power.
2. The apparatus of claim 1, wherein the power source is a battery.
3. The apparatus of claim 1, wherein the power source is at least one solar cell.
4. The apparatus of claim 3, further comprising:
 - a battery as a back-up power source to the at least one solar cell.
5. The apparatus of claim 1, wherein the plurality of photosensors are positioned in a plane offset from the plane of light emission from the light emitting diodes.

6. The apparatus of claim 1, further comprising a transmitter on the glasses and connected to the circuitry for transmitting signals from the circuitry to a remote receiver.

7. The apparatus of claim 1, further comprising a plurality of lamps on the pair of glasses for indicating a sensed condition of a user.

8. The apparatus of claim 1, further comprising a display on lenses of the glasses for indicating the sensed condition of a user.

9. The apparatus of claim 8, wherein the display is a numerical display for indicating the user's heart rate and pulse rate.

10. The apparatus of claim 1, further comprising at least one button on the glasses for inputting the user's information.

11. Heart condition monitoring apparatus, comprising:

- a pair of glasses;
- a plurality of light emitting diodes on the glasses for emitting light onto a surface;
- a plurality of photosensors on the glasses for receiving reflected light;
- a plurality of electrodes positioned on a user's body for determining heart rate;
- a sensor on the user's wrist for determining pulse rate;

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a receiver on the glasses for receiving signals from the plurality of photosensors, from the plurality of electrodes and from the sensor; and a power source connected to the glasses for providing power to the plurality of light emitting diodes, the plurality of photosensors and the receiver.

12. The apparatus of claim 11, further comprising:

a display on the lenses of the glasses for displaying signals transmitted by the receiver indicating a sensed condition of the user.

13. The apparatus of claim 12, wherein the display is a numerical display for indicating the user's pulse rate and heart rate.

14. The apparatus of claim 11, further comprising:

a plurality of lamps on the glasses for indicating the sensed condition of the user.

15. The apparatus of claim 11, wherein the sensor is connected to a watch.

16. The apparatus of claim 11, wherein the plurality of photosensors are positioned in a plane offset from the plane of light emission from the light emitting diodes.

17. The apparatus of claim 11, wherein the power source is a battery.

18. The apparatus of claim 11, wherein the power source is at least one solar cell.

19. The apparatus of claim 18, further comprising:

a battery as a back-up power source to the at least one solar cell.

20. The apparatus of claim 15, further comprising a radio transmitter on the watch for transmitting signals from the sensor to the receiver.

21. The apparatus of claim 11, wherein the receiver is a signal discriminator chip.

22. A method of monitoring heart condition, comprising:

providing a pair of glasses;
emitting light onto a surface of a user by a plurality of light emitting diodes on the glasses;
receiving reflected light by a plurality of photosensors on the glasses;
determining changes in the amount of reflected light received by the photosensors;
transmitting a signal corresponding to the change in reflected light from the photosensors to circuitry on the glasses; and
determining a user's condition by measuring changes in the signals received by the circuitry.

23. The method of claim 22, further comprising

inputting target conditions to the circuitry;
comparing the sensed condition to the target condition; and

indicating to the user the relation between the sensed condition and the target condition.

24. The apparatus of claim 23, wherein the indicating to the user comprises displaying a lighted display on the lenses of the glasses.

25. The apparatus of claim 23, wherein the indicating to the user comprises displaying a numerical display on the lenses of the glasses.

26. The apparatus of claim 22, further comprising:

sending the signal from the circuitry to a transmitter;
sending the signal from the transmitter to a remote receiver;
sending the signal from the remote receiver to a home computer;
determining if the sensed condition exceeds the user's inputted target condition; and
sending the signal from the home computer to a doctor's office through the Internet when the sensed condition exceeds the target condition.

27. The apparatus of claim 22, further comprising:

sending the signal from the circuitry to a transmitter;
sending the signal from the transmitter to a home computer;

determining if the sensed condition exceeds the user's inputted target condition by the home computer; and

dialing an emergency service by the home computer when the sensed condition exceeds the target condition.

apparatus of claim 22, further comprising:

placing a sensor on the user's wrist;

sensing the user's pulse rate by the sensor; and

transmitting the pulse rate signal from the sensor to the circuitry on the glasses.

apparatus of claim 22, further comprising:

placing a plurality of electrodes on the user;

sensing the user's heart rate through the plurality of electrodes; and

transmitting the heart rate signal from the plurality of electrodes to the circuitry on the glasses.

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cont

Figure 1